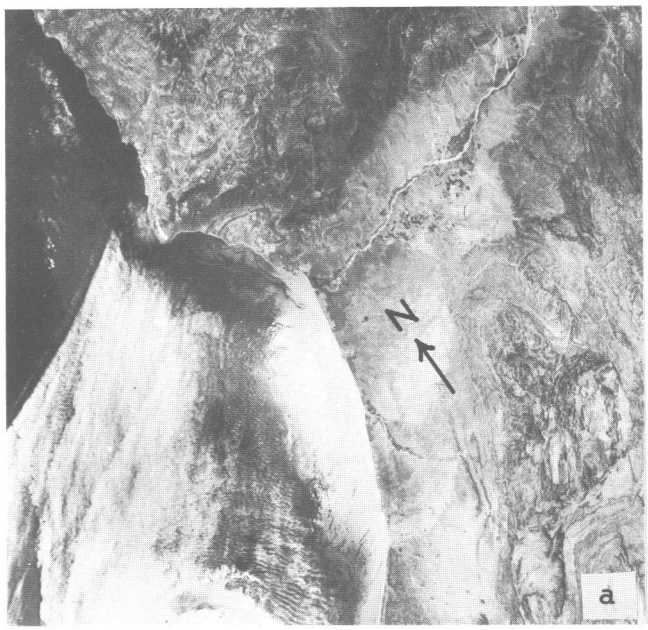
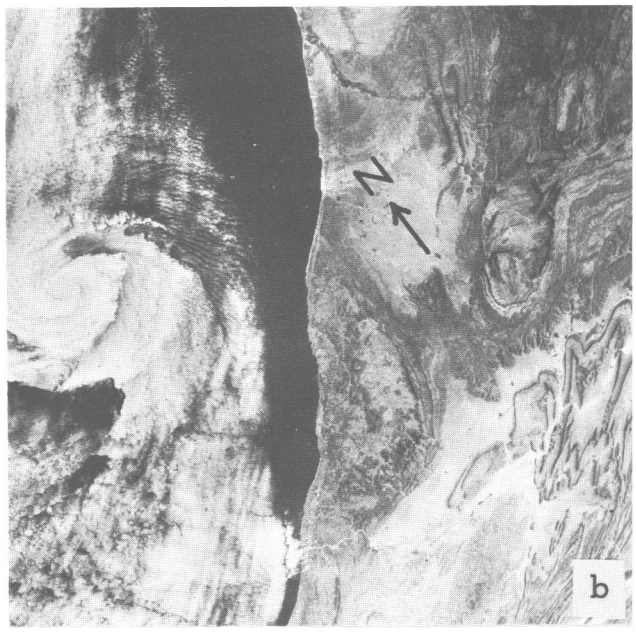
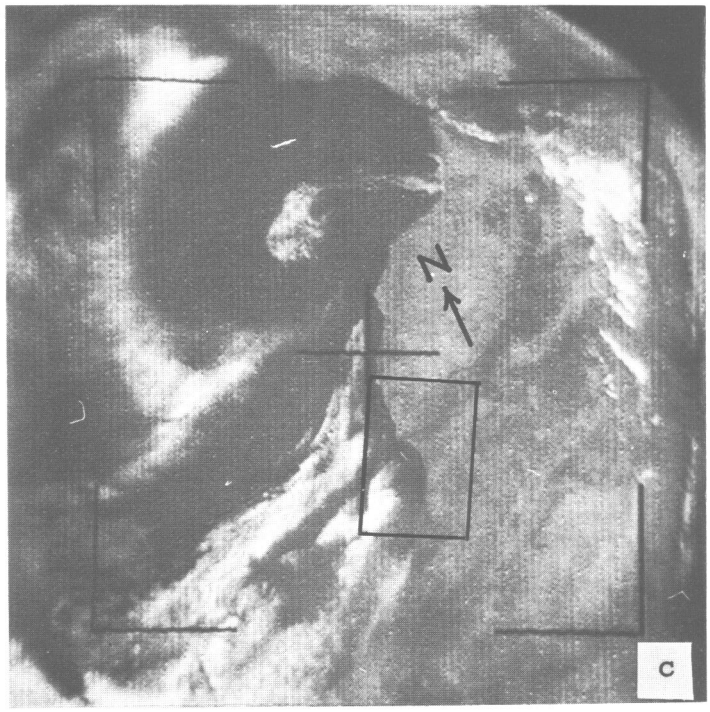
PICTURE OF THE MONTH







(a) Gemini-V, 1025 GMT, August 26, 1965.
(b) Gemini-V, 1025 GMT, August 26, 1965 (altitude roughly 200 km.).
(c) TIROS X, pass 791/790, camera 1, frame 11, 1121 GMT, August 26, 1965 (altitude 769 km.). Rectangle shows approximate area covered by (a) and (b).

An extremely bright area of specular reflection and a remarkable spiral eddy in the stratocumulus cloud layer are visible in the two finely-detailed photographs, (a) and (b), taken by astronauts L. Gordon Cooper and Charles Conrad, Jr., during the Gemini-V spaceflight. Each shows an area roughly 100 n. mi. across (and containing about one-third overlap) along the northwestern African coast, near Agadir, Morocco. The TIROS X television photograph (c), covering a much larger area, was taken only one hour later.

The very bright area adjacent to the coastline in (a) is specular reflection appearing over the water and is completely absent in the same area of (b) as a result of the orbital displacement of the space capsule between pictures. The intense localized reflectivity probably indicates the existence of a smooth sea surface and little or no wind over that particular area. The 1200 GMT surface synoptic analysis showed the usual summertime Azores anticyclone, indicating a moderate northeasterly geostrophic flow along the coastal region. Actual surface reports from scattered stations showed generally light winds.

The clockwise cloud spiral in (b) might represent a mesoscale lee eddy induced by the flow around Cape Ghir, just to the north (visible in (a)). The Atlas mountains, with numerous peaks above 10,000 ft., extend to within 100 mi. of Cape Ghir; they may also have had some influence. Gross features of the cloud spiral are discernible in the lower-resolution TIROS photograph, (c)[1].

Numerous fine-quality photographs of the earth have been taken during manned orbital spaceflights.[2] All were initially recorded on 70-mm. color film; they appear much more spectacular in that form than in black-and-white.

[1] For another view of mesoscale eddies near Africa see "Picture of the Month," October–December 1963, p. 633.
[2] Also, see "Picture of the Month," September 1965, p. 546.